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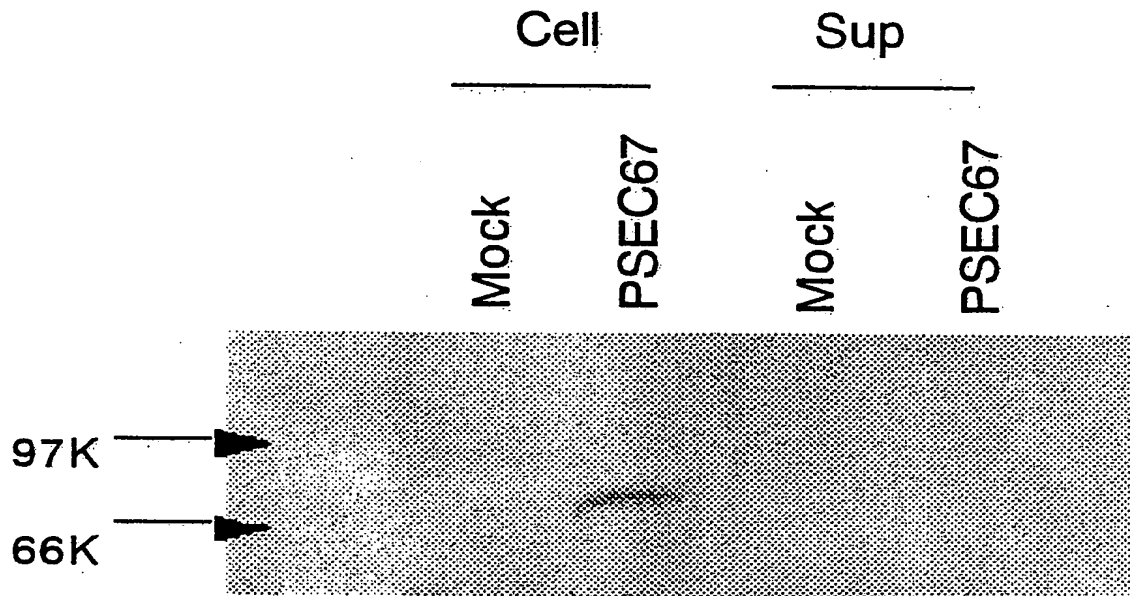
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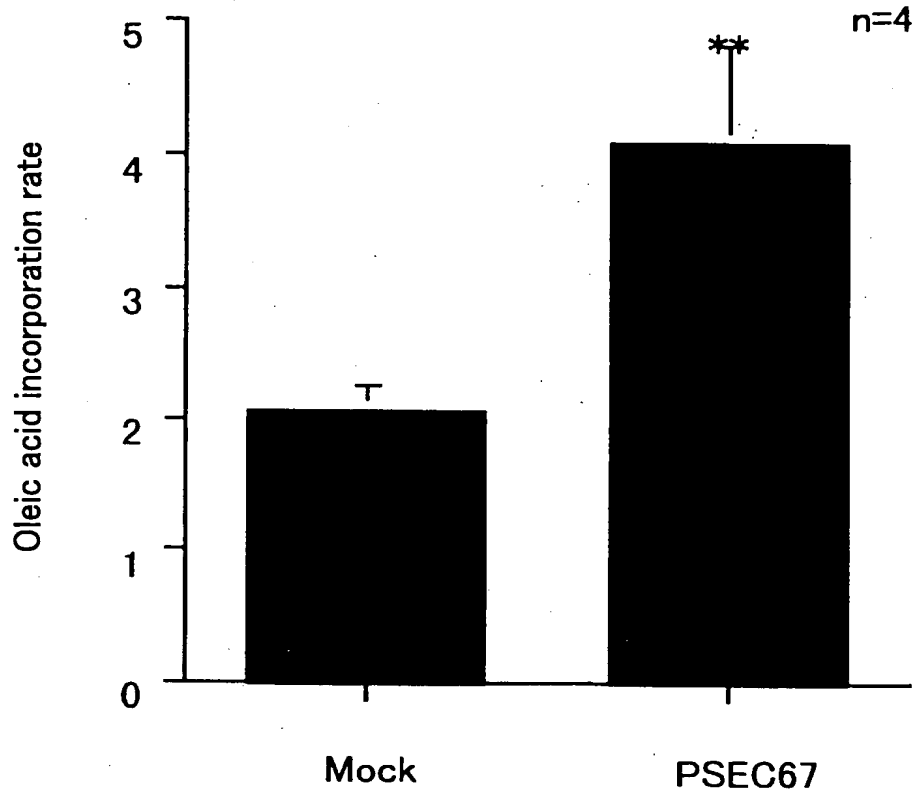
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Figure 1



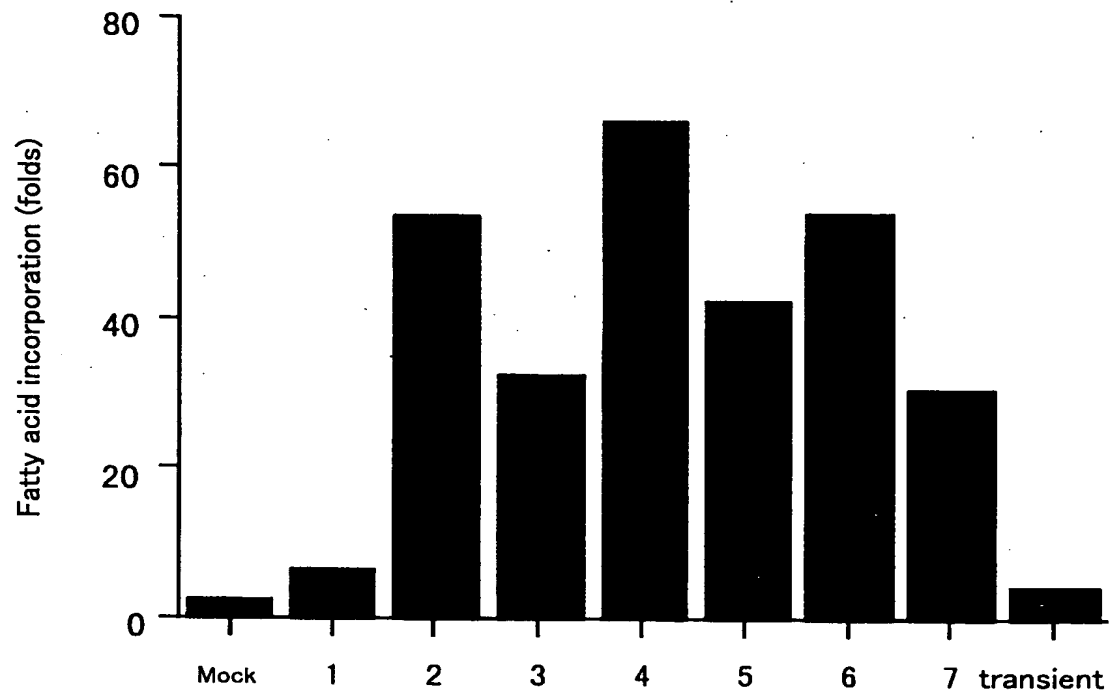
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Figure 2



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Figure 3



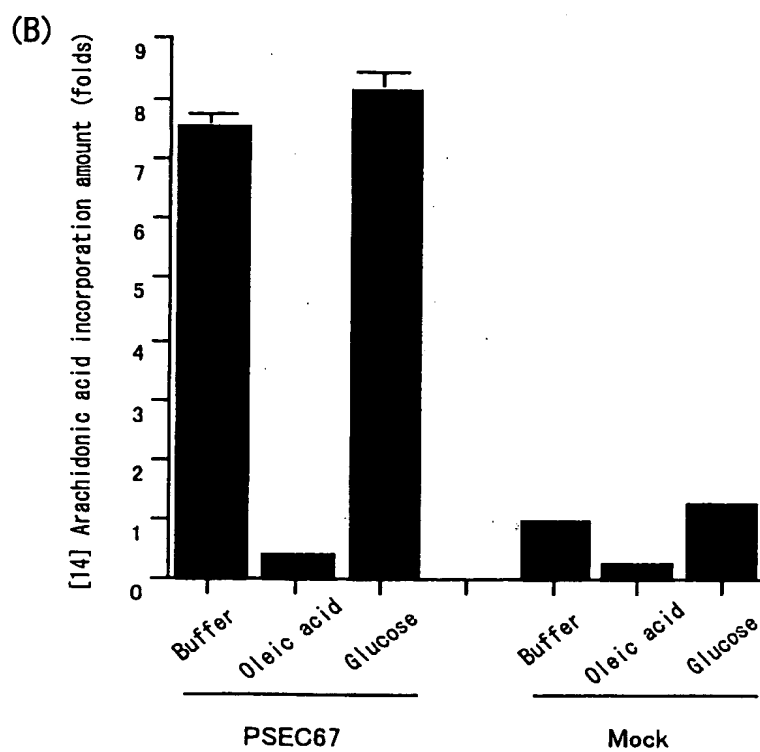
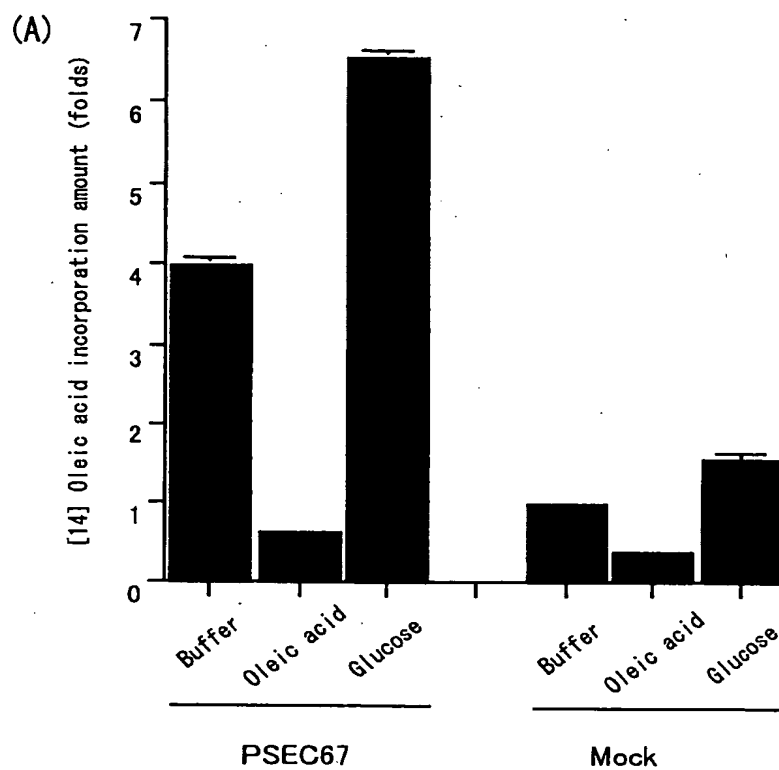
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Figure 4



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Figure 5



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Figure 6

| | | | |
|-----------|------|---|------|
| PSEC67: | 501 | ACAGGGCTGCACGGCCTTC-CTACGTGCGCTAGGCTGGGACTGGGGACCGACGGCG-G | 558 |
| m. FATP3: | 98 | ACGGCGC-GCA-GCGCTTTAGCTACGG-G-AGGCTGAG-CGCGAGAGCAACCGATTG | 151 |
| PSEC67: | 559 | CGACAGCGGCGAGGGGAGCGCTGGAGAAGGCGAGCGGGCAGCGCGG-GGAGCCGG-AGAT | 616 |
| m. FATP3: | 152 | CT-C-GCGCCTTTCTGCGCGCACGGGGCTG-GACCGGGGGCGCGGAGGCTCGGGCAGGG | 208 |
| PSEC67: | 617 | GCAGCGGCC-GGAAG-CGG-CGCG-GAGTTTGCCGGAGGG-GACGGTGCCGCCAGAGGT | 670 |
| m. FATP3: | 209 | GCAGCACTGAGGAAGGCGCACGCGTGGCGCT-CGGCTGGAGATGCGGCTGCTAGAGG- | 266 |
| PSEC67: | 671 | GGAGGAGCGCGCGCCCTCTGTGTCACCTGGAGCAACTGTGGCGCTGCTCCTCCCGCTGGC | 730 |
| m. FATP3: | 267 | -GACGA-CGCGCGCCCTCTGGCACCGGGGCGACCGTGGCGCTGCTCCTCCAGCGGGC | 324 |
| PSEC67: | 731 | CCAGAGTTTCTGTGGCTCTGGTTCCGGCTGGCCAAAGGCCGGCCTGCGCACTGCCTTTGTG | 790 |
| m. FATP3: | 325 | CCGATTTCCTTTGGATTGTTCCGACTGGCCAAAGCTGGCCTGCGCACGGCCTTTGTG | 384 |
| PSEC67: | 791 | CCCACCGCCCTGCGCGGGGCCCCCTGCTGCACTGCCTCCGAGCTGCGGCGCGCGCGG | 850 |
| m. FATP3: | 385 | CCCACCGCTTTACGCGGAGGACCCCTGCTGCACTGCCTCCGAGCTGCGGTGCGAGTGCG | 444 |
| PSEC67: | 851 | CTGGTGCTGGCGCCAGAGTTTCTGGAGTCCCTGGAGCCGGACCTGCCGCCCTGAGAGCC | 910 |
| m. FATP3: | 445 | CTOGTGCTGGCCACAGAGTTCTGGAGTCCCTGGAGCCGGACCTGCCGCCCTTGAAGAGCC | 504 |
| PSEC67: | 911 | ATGGGGCTCCACCTGTGGGCTGCAGGCCAGGAACCCACCTGCTGGAATTAGCGATTTG | 970 |
| m. FATP3: | 505 | ATGGGGCTCCACCTATGGGCGACGGGCCCTGAAACTAATGTAGCTGGAATCAGCAATTTG | 564 |
| PSEC67: | 971 | CTGGCTGAAGTGTCGCTGAAGTGGATGGGCCAGTGCCAGGATACTCTCTTCCCCCAG | 1030 |
| m. FATP3: | 565 | CTATCGGAAGCAGCAGACCAAGTGGATGAGCCAGTGCCGGGTACCTCTCTGCCCCCAG | 624 |
| PSEC67: | 1031 | AGCATAACAGACACGTGCCTGTACATCTTCACTCTGGCACCACGGGCCTCCCCAAGGCT | 1090 |
| m. FATP3: | 625 | AACATAATGGACACCTGCCTGTACATCTTCACTCTGGCACTACTGGCCTGCCAAGGCT | 684 |
| PSEC67: | 1091 | GCTGGATCAGTCATCTGAAGATCCTGCAATGCCAGGGCTTCTATCAGCTGTGTGGTGTC | 1150 |
| m. FATP3: | 685 | GCTCGATCAGTCATCTGAAGTTCTACAGTGCCAGGGATTCTACCATCTGTGTGGAGTC | 744 |
| PSEC67: | 1151 | CACCAGGAAGATGTGATCTACCTCGCCCTCCCACTCTACCACATGTCCGGTCCCTGCTG | 1210 |
| m. FATP3: | 745 | CACCAGGAGACGTGATCTACCTCGCACTCCCACTGTACCACATGTCTGGTCCCTTCTG | 804 |
| PSEC67: | 1211 | GGCATCGTGGGCTGCATGGGCATTGGGGCCACAGTGGTGCTGAAATCCAAGTTCTCGGCT | 1270 |
| m. FATP3: | 805 | GGCATGTGGGCTGCTTGGGCATTGGGGCCACCGTGGTGCTGAAACCCAAGTTCTCAGCT | 864 |

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Figure 7

| | | |
|---------------|--|------|
| PSEC67: 1271 | GGTCAGTTCTGGGAAGATTGCCAGCAGCACAGGGTGACGGTGTTCAGTACATTGGGGAG | 1330 |
| | G CAGTTCTGGGA GATTGCCAG A CACAGGGTGAC GTGTTCCAGTACATTGGGGAG | |
| m. FATP3: 865 | AGCCAGTTCTGGGACGATTGCCAGAAACACAGGGTGACAGTGTTCAGTACATTGGGGAG | 924 |
| PSEC67: 1331 | CTGTGCCGATACCTTGTCAACCAGCCCCGAGCAAGGCAGAACGTGGCCATAAGGTCCGG | 1390 |
| | TGTGCCGATACCT GTCAACCAGCCCCGAGCAAGGCAGA TG CCATAAGGT CG | |
| m. FATP3: 925 | TTGTGCCGATACCTCGTCAACCAGCCCCGAGCAAGGCAGAGTTTGACCATAAGGTGCGC | 984 |
| PSEC67: 1391 | CTGGCAGTGGGCAGCGGGCTGCGCCAGATACCTGGGAGCGTTTGTGCGGCGCTTCGGG | 1450 |
| | TGGCAGTGGGCAG GGG TGCGCCAGACCTGGGAGCGTTT TGCGCG TT GG | |
| m. FATP3: 985 | TTGGCAGTGGGCAGTGGGTTGCGCCAGACACCTGGGAGCGTTTCTGCGGCGATTGGA | 1044 |
| PSEC67: 1451 | CCCTGCAGGTGCTGGAGACATATGGACTGACAGAGGGCAACGTGGCCACCATCAACTAC | 1510 |
| | CC CTGCAG T CTGGAGAC TATGG TGACAGAGGGCAACGT GC AC TCAA TAC | |
| m. FATP3:1045 | CCTCTGCAGATACTGGAGACGTATGGCATGACAGAGGGCAACGTAGCTACGTTCAATTAC | 1104 |
| PSEC67: 1511 | ACAGGACAGCGGGCGCTGTGGGGCGTGCTTCTGGCTTTACAAGCATATCTTCCCTTC | 1570 |
| | ACAGGAC GC GGG GC GTGGGGCG GCTTCTGGCTTTACAAGCA ATCTTCCCTTC | |
| m. FATP3:1105 | ACAGGACGGCAGGGTGCAAGTGGGGCGAGCTTCTGGCTTTACAAGCACATCTTCCCTTC | 1164 |
| PSEC67: 1571 | TCCTTGATTGCTATGATGTCAACACAGGAGAGCCAATTGCGGACCCCGAGGGGCACTGT | 1630 |
| | TCCTTGATTG TA GATGTCA ACAGG GAGCC ATTCGG A CCCAGGGGCACTG | |
| m. FATP3:1165 | TCCTTGATTGATACGATGTCTATGACAGGGGAGCCTATTCGGAATGCCAGGGGCACTGC | 1224 |
| PSEC67: 1631 | ATGGCCACATCTCCAGGTGAGCCAGGGCTGCTGGTGGCCCCGGTAAGCCAGCAGTCCCCA | 1690 |
| | ATG CCACATCTCCAGGTGAGCCAGG CT CTGGTGGCCCC GT AGCCAGCAGTCCCC | |
| m. FATP3:1225 | ATGACCACATCTCCAGGTGAGCCAGGCTACTGGTGGCCCCAGTGAGCCAGCAGTCCCCC | 1284 |
| PSEC67: 1691 | TTCTTGGGCTATGCTGGCGGGCCAGAGCTGGCCAGGGGAAGTTGCTAAAGGATGTCTTC | 1750 |
| | TTCTTGGGCTATGCTGG G CC GAGCTGGCC AGG AAG TGCT AAGGATGTCTTC | |
| m. FATP3:1285 | TTCTTGGGCTATGCTGGGGCTCCGAGCTGGCCAAGGACAAGCTGCTGAAGGATGTCTTC | 1344 |
| PSEC67: 1751 | CGGCTGGGGATGTTTTCTTCAACACTGGGGACCTGCTGGTCTGCGATGACCAAGGTTTT | 1810 |
| | GG CTGGGGA GTTTTCTTCAA ACTGGGGACCT TGGTCTG GATGA CAAGG TTT | |
| m. FATP3:1345 | TGGTCTGGGGACGTTTTCTTCAATACTGGGGACCTCTTGGTCTGTGATGAGCAAGGCTTT | 1404 |
| PSEC67: 1811 | CTCGCTTCCATGATCGTACTGGAGACACCTTCAGGTGGAAGGGGAGAAATGTGGCCACA | 1870 |
| | CT C CTTCCA GATCGTACTGGAGACACC TCAGGTGGAAGGG GAGAATGTGGCCACA | |
| m. FATP3:1405 | CTTCACTTCCAGATCGTACTGGAGACACCATCAGGTGGAAGGGAGAGAATGTGGCCACA | 1464 |
| PSEC67: 1871 | ACCGAGGTGGCAGAGGTCTTCGAGGCCCTAGATTTTCTTCAGGAGGTGAACGTCTATGGA | 1930 |
| | AC GA GTGGC GAGGTCTT GAG CCCT GA TT CTCAGGAGGTGAAC TCTATGGA | |
| m. FATP3:1465 | ACTGAAGTGGCTGAGGTCTTGGAGACCCTGGACTTCCTTCAGGAGGTGAACATCTATGGA | 1524 |
| PSEC67: 1931 | GTCAGTGTGCCAGGGCATGAAGGCAGGGCTGGAATGGCAGCCCTAGTTCTGCGTCCCCC | 1990 |
| | GTCAC GTGCCAGGGCA GAAGGCAGGGC GG ATGGC GCC T G TCTGCG CCCCC | |
| m. FATP3:1525 | GTCACGGTGGCAGGGCAOGAAGGCAGGGCAGGCATGGCGGCTTGGCTCTGCGGCCCCG | 1584 |
| PSEC67: 1991 | CACGCTTTGGACCTTATGCAGCTCTACACCCAGTGTCTGAGAACTTGCCACCTTATGCC | 2050 |
| | CA GCT TG ACCT TGCAGCTCTACA CCA GT TCTGAGAACTTGCCACC TATGCC | |
| m. FATP3:1585 | CAGGCTCTGAACCTGGTGCAGCTCTACAGCCATGTTTCTGAGAACTTGCCACCGTATGCC | 1644 |
| PSEC67: 2051 | CGGCCCCGATTCTCAGGCTCCAGGAGTCTTTGGCCACCACAGAGACCTTCAAACAGCAG | 2110 |
| | CG CC CG TT CTCAGGCTCCAGGA TCTTTGGCCAC AC GAGACCTTCAAACAGCAG | |
| m. FATP3:1645 | CGACCTCGGTTTCTCAGGCTCCAGGAATCTTTGGCCACTACTGAGACCTTCAAACAGCAG | 1704 |

Title: FATTY ACID TRANSPORTER
PROTEINS AND THE GENES ENCODING
THE PROTEINS

Inventor(s): MORIKAWA Noriyuki et al.
Attorney Docket No.: 084335-0154

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Figure 8

| | | |
|---------------|--|------|
| PSEC67: 2111 | AAAGTTCGGATGGCAAATGAGGGCTTCGACCCCAGCACCCCTGTCTGACCCACTGTACGTT | 2170 |
| | AA GTT GGATGGC AATGAGGGCTT GACCCCAG CTGTCTGACCCACT TA GTT | |
| m. FATP3:1705 | AAGGTTAGGATGGCCAATGAGGGCTTTGACCCCAGTGACTGTCTGACCCACTCTATGTT | 1764 |
| PSEC67: 2171 | CTGGACCAGGCTGTAGGTGCCTACCTGCCCCCTCACAACCTGCCCGGTACAGCGCCCTCCTG | 2230 |
| | CTGGACCA G T TAGG GCCTACCTGCCCCCTCACA CTGCCCGGTACAG GCCCTCCTG | |
| m. FATP3:1765 | CTGGACCAAGATATAGGGGCCTACCTGCCCCCTCACACCTGCCCGGTACAGTGCCCTCCTG | 1824 |
| PSEC67: 2231 | GCAGGAAACCTTCGAATCTGA | 2251 |
| | C GGA ACCTTCGAATCTGA | |
| m. FATP3:1825 | TCTGGAGACCTTCGAATCTGA | 1845 |

| | | | |
|-----------|------|---|---|
| PSEC67: | 61' | PLLLLKLHLWPQLRWLPADLAFVRAALCCCKRALRARALAAAAADPEGPEGGCSLAWRLAE | ***** . *.***** |
| m. FATP3: | 1" | | AAADPESESSESGCSLAWRLAY |
| PSEC67: | 121' | LAQQRAAHTFLIHGSRFFSYSEAERESNRAARAFLRALGWDWGPDDGDSGEGSAGEGERA | **.....*****.****.***** ***** **. |
| m. FATP3: | 21" | LAREQPTHTFLIHGAQRFSYAEERESNRIARAFLRARGWTGGRGSGR—GSTEEGARV | **. * . . . **..**.*. |
| PSEC67: | 181' | APGAGDAAAGSGAEFAGGDGAARGGGAAAPLSPGATVALLLPAGPEFLWLWFGGLAKAGLR | ** *** .*** *. *. *.*****.***.***** |
| m. FATP3: | 79" | APPAGD—AAAR—GTTAPPLAPGATVALLLPAGPDFLWIWFGGLAKAGLR | |
| PSEC67: | 241' | TAFVPTALRRGPLLHCLRSCGARALVLAPEFLESLEPDLPALRAMGLHLWAAGPGTHPAG | *****.*****.*****.***.***.*** |
| m. FATP3: | 125" | TAFVPTALRRGPLLHCLRSCGASALVLAPEFLESLEPDLPALRAMGLHLWATGPETNVAG | |
| PSEC67: | 301' | ISDLLAEVSAEVDGPVPGYLSSPQSITDTCLYIFTSGTTGLPKAARISHLKILQCQGFYQ | **..**.*.***.*****.***.* *****.*****.*****. |
| m. FATP3: | 185" | ISNLLSEAADQVDEPVPGYLSAPQNMIDTCLYIFTSGTTGLPKAARISHLKVLQCQGFYH | |
| PSEC67: | 361' | LCGVHQEDVIYLALPLYHMSGSLGIVGCMGIGATVVLKSKFSAGQFWEDCQQHRVTVFQ | *****.*****.*****.***.***.***.***** |
| m. FATP3: | 245" | LCGVHQEDVIYLALPLYHMSGSLGIVGCLGIGATVVLKPKFSASQFWDDCQKHRVTVFQ | |
| PSEC67: | 421' | YIGELCRYLVNQPPSKAERGHKVRILAVGSGLRPDTWERFVRRFGPLQVLETYGLTEGNVA | *****.*****.*****.*****.***** |
| m. FATP3: | 305" | YIGELCRYLVNQPPSKAEFDHKVRLAVGSGLRPDTWERFLRRFGPLQILETYGMTEGNVA | |
| PSEC67: | 481' | TINYTGQRGAVGRASWLYKHIFPFSLIRYDVTGTGEPIRDPOGHCMATSPGEPGLLVAPVS | *.***.*****.*****.*****.*****.***** |
| m. FATP3: | 365" | TFNYTGQRGAVGRASWLYKHIFPFSLIRYDVTGTGEPIRNAQGHCMITSPGEPGLLVAPVS | |
| PSEC67: | 541' | QQSPFLGYAGGPELAQGKLLKDVFVRPGDVFFNTGDLVLCDDQGFRLFHDRTGDTFRWKGE | *****.***.*****.*****.*****.*****.***** |
| m. FATP3: | 425" | QQSPFLGYAGAPELAKDKLLKDVFWSGDVFFNTGDLVLCDEQGFRLFHDRTGDTIRWKGE | |
| PSEC67: | 601' | NVATTEVAEVFEALDFLQEVNIVGVTVPGEHGRAGMAALVLRPPHALDLMQLYTHVSEN | *****.***.*****.*****.*****.***.***.***** |
| m. FATP3: | 485" | NVATTEVAEVLETLDLQEVNIVGVTVPGEHGRAGMAALALRPPQALNLVQLYSHVSEN | |
| PSEC67: | 661' | PPYARPRFLRLQESLATTETFKQKVRMANEGFDPSTLSDPLYVLDQAVGAYLPLTTARY | *****.*****.*****.*****.*****.*****.***** |
| m. FATP3: | 545" | PPYARPRFLRLQESLATTETFKQKVRMANEGFDPVLSPLYVLDQDIGAYLPLTPARY | |
| PSEC67: | 721' | SALLAGNLRI | ***.***.*** |
| m. FATP3: | 605" | SALLSGDLRI | |

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Figure 10

| | | |
|-----------|------|---|
| PSEC67: | 61' | PLLLKLHLWPQLRWLPADLAFVRLCCKRALRARALAAAAADPEGPEGGCSLAWRLAE |
| acyl CoA: | 1" | MLSAIYTVLA |
| PSEC67: | 121' | LAQQRAAHTFLIHGSRFFSYSEAERESNRAARAFLRALGWDWGPDDGDSGEGSAGEGERA |
| acyl CoA: | 11" | GLLFLPLLNLCCPYFFQDIGYFLKVAAGVRRVRSYGQRRPARTILRAFLEKARQTPHKP |
| PSEC67: | 181' | APGAGDAAAGSGAEFAGGDGAARGGGAAPLSPGATVALLLPAGPEFLWLWFLGAKAGLR |
| acyl CoA: | 71" | FLLFRDETLTYAQVDRRSNQVARALHDHLGLRQGDCAVLLMGNEPAYVWLWLGLVKLGCA |
| PSEC67: | 241' | TAFVPTALRRGPLLHCLRSCGARALVLAPEFLESLEPDLPALRAMGLHLWAAGPGTHPAG |
| acyl CoA: | 131" | MACLNYNIRAKSLLHCFQCCGAKVLLVSPELQAAVEEILPSLKDDVSIYYVSRSTSNTDG |
| PSEC67: | 301' | ISDLLAEVSAEVDGPVPGYLSSPQSITDTCL <u>YIFTS GTTGLP</u> KAARISHLKILQCQGFYQ |
| acyl CoA: | 191" | IDSFLDKVDEVSTEPIPESWRSEVTFSTPAL <u>YIYTS GTTGLP</u> KAAMITHQRIWYGTGLTF |
| PSEC67: | 361' | LCGVHQEDVIYLALPLYHMSGSLGIVGCMGIGATVVLKSKFSAGQFVEDCQQHRVTVFQ |
| acyl CoA: | 251" | VSGLKADDVIYITLPHYHSAALLIGIHGCIVAGATLALRTKFSASQFWDCCRKYNTVIQ |
| PSEC67: | 421' | YIGELCRYLVNQPPSKAERGHKVR LAVSGSLRPD TWERFVRFGPLQVLETYGLTEGNVA |
| acyl CoA: | 311" | YIGELLRYLCNSPQKPNDRDHKVRLALGNLGRGDVWRQFVKRFGDICIYEFYAATEGNIG |
| PSEC67: | 481' | TINYTGQRGAVGRASWLYKHIFPFS LIRYDVTTGEP IRDPQGHCMATSPGEPGLLVAPVS |
| acyl CoA: | 371" | FMNYARKVGAVGRVNYLQKKIITYDLIKYDVEKDEPVRDENGVCVRVPKGEVGLLVCKIT |
| PSEC67: | 541' | QQSPFLGYAGGP ELAQGKLLKD VFRPGDVFFNTGDLLVCDDQGF LR <u>FHDRTGDTFRWKGE</u> |
| acyl CoA: | 431" | QLTPFNQYAGAKAQTEKKLRDVF KKGDL YFNSGDLLMVDHENFIY <u>FHDRVGD TFRWKGE</u> |
| PSEC67: | 601' | <u>NVATTEVA</u> EVFEALDFLQEVN VYGVTVP GHEGRAGMAALVLRPPHALDLMQLYTHVSENL |
| acyl CoA: | 491" | <u>NVATTEVA</u> DTVGLVDFVQEVN VYGVHVPDHEGRIGMASIKMKENHEFDGKKLFQHIADYL |
| PSEC67: | 661' | PPYARPRFLRLQESLATTETFKQKVRMANEGFDPSTLS DPLYVLDQAVGAYLPLTTARY |
| acyl CoA: | 551" | PSYARPRFLRIQDTIEITGTGFKHRKMTLVEEGFNPAVIKDALYFLDDTAKMYVPMTEDIY |
| PSEC67: | 721' | SALLAGNLRI |
| acyl CoA: | 611" | NAISAKTLKL |